

AMENDMENTS TO THE CLAIMS

The following is a complete listing of the claims indicating the current status of each claim and including amendments currently entered as highlighted.

1-35. (canceled)

36. (currently amended) The device of claim 35, claim 65, wherein said rotatable body is one of the objects selected from the group consisting of tops, flying disks, flying rings, boomerangs, roulette wheels, yo-yos, balls, and ko-en-gen.

37. (canceled)

38. (currently amended) The device of claim 65, claim 37, wherein said control unit controller is configured to determine from said output signal a true direction of rotation for said data received from said rotation measuring means.

39. (currently amended) The device of claim 65, claim 37, wherein said rotation data measuring means sensor includes comprises an induction coil.

40. (canceled)

41. (currently amended) The device of claim 65, claim 40, wherein said display means comprises includes a plurality of independently activatable and deactivatable light sources.

42-43. (canceled)

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44. (currently amended) The device of claim 65, claim 35, further comprising a wireless data receiving means-receiver configured to receive data from a remote location and pass said data to said control unit controller.

45. (currently amended) The device of claim 65, claim 35, further comprising a wireless data transceiver configured to receive rotation data from said control unit controller and transmit said rotation data to a remote location, and further configured to receive data from a remote location and pass said data to said control unit controller.

46. (currently amended) A rotating device comprising:

- (a) a rotatable body;
- (b) a rotation data measuring means-arrangement deployed inside said rotatable body;
- (c) a control unit configured to receive data relating to rotation of said rotatable body from said rotation data measuring means arrangement;
- and
- (d) a perturbation generating means-mechanism configured to receive data from said control unit and to generate periodic perturbations synchronized with the rotation of the device so as to cause said rotatable body to move in a prescribed direction.

47. (previously presented) The device of claim 46, wherein said rotatable body is one of the objects selected from the group consisting of tops, flying disks, flying rings, boomerangs, roulette wheels, yo-yos, balls, and ko-en-gen.

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48. (currently amended) The device of claim 46, further comprising a wireless data receiving means—receiver configured to receive data from a remote location and pass said data to said control unit.

49. (currently amended) The device of claim 46, wherein said perturbation generating means—mechanism includes comprise a mass moving means arrangement configured to periodically move the center of mass of said rotatable body.

50. (currently amended) The device of claim 46, wherein said perturbation generating means—mechanism includes comprise an air-resistance varying means—arrangement configured to periodically change the air resistance of said rotating body.

51. (previously presented) The device of claim 46, further comprising a wireless data transceiver configured to receive rotation data from said control unit and transmit said rotation data to a remote location, and further configured to receive data from a remote location and pass said data to said control unit.

52. (currently amended) A rotating device comprising:

- (a) a rotatable body;
- (b) a rotation data measuring means—arrangement deployed inside said rotatable body, said rotational data measuring means—arrangement being is configured to detect the magnetic field of the Earth, and said rotation data measuring means—arrangement is configured to produce a

substantially sinusoidal out signal having a frequency related to rotation of said rotatable body;

(c) a control unit configured to receive data relating to rotation of said rotatable body from said rotation data measuring means arrangement; and

(d) a perturbation generating means mechanism configured to receive data from said control unit and to generate periodic perturbations synchronized with the rotation of the device so as to cause said rotatable body to move in a prescribed direction.

53. (previously presented) The device of claim 52, wherein said rotatable body is one of the objects selected from the group consisting of tops, flying disks, flying rings, boomerangs, roulette wheels, yo-yos, balls, and ko-en-gen

54. (currently amended) The device of claim 52, further comprising a wireless data receiving means receiver configured to receive data from a remote location and pass said data to said control unit.

55. (currently amended) The device of claim 52, wherein said perturbation generating means mechanism includes comprise a mass moving means arrangement configured to periodically move the center of mass of said rotatable body.

56. (currently amended) The device of claim 52, wherein said perturbation generating means mechanism comprise an air-resistance varying means arrangement configured to periodically change the air resistance of said rotating body.

57. (previously presented) The device of claim 52, further comprising a wireless data transceiver configured to receive rotation data from said control unit and transmit said rotation data to a remote location, and further configured to receive data from a remote location and pass said data to said control unit.

58. (currently amended) A rotating device comprising:

- (a) a rotatable body;
- (b) a rotation data measuring ~~means~~arrangement deployed inside said rotatable body;
- (c) a control unit configured to receive data relating to rotation of said rotatable body from said rotation data measuring ~~means~~arrangement;
- (d) a display ~~means~~ disposed along at least a portion of said rotatable body;
- (e) a display ~~control~~means ~~controller~~ for controlling display of images on said display ~~means~~;
- (f) a clock ~~means~~arrangement coupled to said display ~~control~~means ~~controller~~ for refreshing said display of images on said display ~~means~~ at a clock rate, wherein said clock rate is dependent on said rotation data; and
- (g) a perturbation generating ~~means~~mechanism configured to receive data from said control unit and to generate periodic perturbations synchronized with the rotation of the device so as to cause said rotatable body to move in a prescribed direction.

59. (previously presented) The device of claim 58, wherein said rotatable body is one of the objects selected from the group consisting of tops, flying disks, flying rings, boomerangs, roulette wheels, yo-yos, balls, and ko-en-gen

60. (currently amended) The device of claim 58, further comprising a wireless data receiving means receiver configured to receive data from a remote location and pass said data to said control unit.

61. (currently amended) The device of claim 58, wherein said perturbation generating means mechanism includes comprise a mass moving means arrangement configured to periodically move the center of mass of said rotatable body.

62. (currently amended) The device of claim 58, wherein said perturbation generating means mechanism includes comprise an air-resistance varying means arrangement configured to periodically change the air resistance of said rotating body.

63. (previously presented) The device of claim 58, further comprising a wireless data transceiver configured to receive rotation data from said control unit and transmit said rotation data to a remote location, and further configured to receive data from a remote location and pass said data to said control unit.

64. (currently amended) The device of claim 58, wherein said rotation data measuring means arrangement includes comprise a means for detecting the magnetic field of the Earth.

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65. (new) A rotating device comprising:
  - (a) a rotatable body;
  - (b) a rotation sensor deployed inside said rotatable body, said rotation sensor being responsive to rotation of said rotatable body within the Earth's magnetic field to produce an output signal indicative of revolutions of said rotatable body relative to the Earth's magnetic field;
  - (c) a display disposed on said rotatable body; and
  - (d) a controller configured to actuate said display so as to show content, said controller being responsive to said output signal so as to synchronize said display with rotation of said rotatable body such that said content appears substantially non-rotating as said rotatable body rotates,

wherein said controller is configured to operate in at least a first mode wherein said content includes alphanumeric symbols which vary as a function of one of the group consisting of: a number of revolutions of said rotatable body during a current spinning motion, and a rate of rotation of said rotatable body.

66. (new) The rotating device of claim 65, wherein said content indicates a cumulative number of revolutions of said rotatable body during a current spinning motion.

67. (new) The rotating device of claim 66, wherein said controller is further configured to compare said cumulative number of revolutions with a previous maximum number of revolutions.

68. (new) The rotating device of claim 66, wherein said controller is further configured to compare said cumulative number of revolutions with a randomly generated target number of revolutions.

69. (new) The rotating device of claim 65, wherein said content indicates a current rate of rotation of said rotatable body.

70. (new) The rotating device of claim 69, wherein said controller is further configured to compare said current rate of rotation with a previous maximum rate of rotation.

71. (new) A rotating device comprising:

- (a) a rotatable body;
- (b) a rotation sensor deployed inside said rotatable body, said rotation sensor being responsive to rotation of said rotatable body within the Earth's magnetic field to produce an output signal indicative of revolutions of said rotatable body relative to the Earth's magnetic field;
- (c) a display disposed on said rotatable body; and
- (d) a controller configured to actuate said display so as to show content, said controller being responsive to said output signal so as to synchronize said display with rotation of said rotatable body such that said content appears substantially non-rotating as said rotatable body rotates,

wherein said controller is further responsive to said output signal so as to switch the device to a low-power mode when said output signal is indicative of a near-zero rate of rotation for a predetermined time.

72. (new) The rotating device of claim 71, wherein said low-power state is an off state.

73. (new) A rotating device comprising:

- (a) a rotatable body;
- (b) a rotation sensor deployed inside said rotatable body, said rotation sensor being responsive to rotation of said rotatable body within the Earth's magnetic field to produce an output signal indicative of revolutions of said rotatable body relative to the Earth's magnetic field;
- (c) a display disposed on said rotatable body; and
- (d) a controller configured to actuate said display so as to show content, said controller being responsive to said output signal so as to synchronize said display with rotation of said rotatable body such that said content appears substantially non-rotating as said rotatable body rotates,

wherein said controller is configured to operate in at least a first mode wherein said content varies slightly between successive revolutions of said rotatable body to generate animated display content.